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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,746	09/22/2006	Ranjana C. Patel	HAM 830025	5627
63067 7590 03/17/2011 HUNTSMAN ADVANCED MATERIALS AMERICAS LLC 10003 WOODLOCH FOREST DRIVE THE WOODLANDS, TX 77380				
EXAMINER HAMILTON, CYNTHIA				
ART UNIT		PAPER NUMBER		
1722				
NOTIFICATION DATE		DELIVERY MODE		
03/17/2011		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

## Application No.

10/593,746

## Applicant(s)

PATEL ET AL.

## Examiner

Cynthia Hamilton

## Art Unit

1722

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☒ Claim(s) 1-10 and 12 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 27 January 2011 has been entered.

2. Claims 1-6 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Applicant timely traversed the restriction (election) requirement in the reply filed on 02 July 2009.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 7-10 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claim 7, applicants by amendment have changed the properties required for the first component by requiring "when cured in the presence of a photocuring initiator by exposure to UV radiation.... the acrylate is cured within 50 milliseconds...". The original claims referenced this property to be required of the "the first component". As claim 7, now adds more than acrylates to "the first component" then the difference between curing the "acrylate" alone

instead of the "first component" is clearly different. There is no support found for curing only part of the first component to obtain the speed of cure desired in the original disclosure. The examiner does believe that there is support for the first component and that an acrylate can be part or whole of the first component but when mixing the cationically photocurable material and optionally the material of claim 7 with the acrylate to form the first component, there is no support for only part of the first component having the speed of cure required. Thus, with respect to instant claims 7-10 and 12, workers of ordinary skill in the art would not have recognized applicants having full possession of the scope of composition now claimed in their original disclosure. Applicants argue that they have replaced "acrylate" with "the first component". This has not been done in claim 7 but has been done in claim 8. Thus, there is still a problem with support of claims 7-10 and 12 with respect to the language present in claim 7. The rejection stands.

5. Claims 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicants in claim 9 require the first component have present the following: an acrylate, at least one cationically photocurable materials, a cationic photocuring initiator, an acid amplifier, an amine photoinitiator, a photopolybase amplifcater and an anionically photocurable material. The examiner notes that by amplifcater applicants may mean amplifier. An acrylate can be both the acrylate and the anionically photocurable material as acrylates are known to be both free radically and anionically polymerizable but not cationically polymerizable. See Kaufman et al, page 59, "Anionic or Free

Radical". Applicants have not presented an example of this three cure system and in view of both acid and base being generated there is some question as to what will work for the worker of ordinary skill in the art. The examiner found little reference to such anionic systems and no reference to their concomitant use with free radical and cationic systems in the same curing scheme. The original claims do support mixing all the systems set forth in the original claims for the first component, but the requirement that there be a particular speed achievable in this curing leaves a lot of experimentation to the worker of ordinary skill in the art to form the claimed invention. The examiner believes there is insufficient guidance to direct the worker of ordinary skill in the art to allow the claimed invention of instant claim 9 to be made and that to find the combinations which would do so requires undue experimentation. Thus, the compositions of claim 9 is held non-enabled for this reason. The examiner is open to showings that workers of ordinary skill in the art would understand how to obtain the results desired if the desire were set forth as in the instant invention of claim 9.

6. Claim 9 is objected to because of the following informalities: "amplificater" should be "amplifier". This term "amplificater" is only found in the original claims not in the original specification. The specification makes use of "photo-polybase amplifier" as found in [0060] of the prepublication document for this application, i.e. US 2007/0205528 A1. The examiner has assumed a misspelling slipped into the claim language. Appropriate correction is required.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 7-10 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. There is no clear antecedent basis for "the process" in (c) ... prior to use in the process..." in lines 18-19 of claim 7. Thus, the limits of claims 7-10 and 12 are confusing and indefinite.

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In column 7, lines 13-25, Chiakaoka et al (US 6130025) list acrylates and polythiols as radically polymerizing organic compounds of a component of their stereolithographic resin composition which are mixed with cationic cure materials. No examples are given of using both acrylates and polythiols together. In column 8, lines 56-57, Chiakaoka et al disclose the radically polymerizing organic compounds may be used independently or in combination to attain a desired property. Chiakaoka et al disclose compositions with all but the cationic initiator. See Derwent-Acc-no: 1988-123706 and AN 1988:592287 also with respect to Chiakaoka et al. Ohkawa et al (US 5,236,967) teaches the mixing of acrylates and polythiols in free radically curable systems for optical molding. Irving et al (us4849320) disclose photocurable systems with three different curing groups of which one is cationic and two are free radical in nature, but these do not read on the instant invention.

7. The examiner found no prior art or combination of prior art making obvious or anticipating the instant invention as now claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia Hamilton whose telephone number is 571-272-1331. The examiner can normally be reached on Monday through Friday 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571) 272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cynthia Hamilton/  
Primary Examiner, Art Unit 1722

14 March 2011